#### **ENVIRONMENTAL PROTECTION AGENCY**

Office of Enforcement

CHAIN OF CUSTODY RECORD

REGION 5 77 West Jackson Boulevard Chicago, Illinois 60604

PROJ. 02AH2		PROJEC Cheshire			ng Study		NO.			Activity Code: 12345
100	SAMPLERS: (Print Name and Sign) Mike Murphy Mike Murphy Mike Murphy				l_	OF	y y		1/ AIR 20020028	
STA. NO.	DATE	TIME	COMP	GR AB		ON LOCATION	CON- TAINERS	n a		TAG NUMBERS
DO1	12/9	00:00	17-		GUIDING HAND	S SCHOOL	1			5-340111 1 to 1
S01	12/9	00:00	X		GUIDING HAND	S SCHOOL	1			5-340110 1 to 1
SO2	12/9	00:00	X		RVHS		1			5-340112 1 to 1
SO3	12/9	00:00	Х		ADDAVILLE		1			5-340113 1 to 1
										GHS
										Serial # 3012 Psig Aug = 18.85
		V	1.7							Setial # 3013, Parg Aug = 20,15
										RUHS
										Serial # 3009, Potg Aug = 19.05
			-							Addaville
										serial # 3011, Poty Aug = 19.2
				-		V V				
Relinquishe Relinquishe	urn	/		12	Date / Time	William !	nature)	2		Ship To:
										ATTN:
Relinquished by: (Signature)  Date / Time  Received for Laborator (Signature)			tory by:	12/i3/	1 Time	Airbill Number  WPS # 124411990140910059  Chain of Custody Seal Numbers				
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Project No. 02AH22	Project Na	me CHISHIRE W28 ARRIVI	M MATT 12	112/2001 MILLEDZ	90107A 40: 1/3/2	0 (n) ?
Sampler	1110 2000	CC 28 POINT	1010110112	-1.51001 DUBLY	118:1131	COS
Mike Murphy						
Cooler ID	02AH221	Page 5-1400	27			
Sample ld:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH22DO1	DO1	09/12/2001 00:00:00	◯ Grab Com	GUIDING HANDS SCHOOL	1	5-340111 1 to 1
Bottle	No. 1	Parameter				
		PM10				
Sample ld:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH22S01	S01	09/12/2001 00:00:00	○ Grab Com	GUIDING HANDS SCHOOL	1 3	5-340110 1 to 1
Bottle	No. 1	Parameter				
		PM10				
Sample ld:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH22SO2	SO2	09/12/2001 00:00:00	○ Grab Com	RVHS	1	5-340112 1 to 1
Bottle	No. 1	Parameter				
		PM10				
Sample ld:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH22SO3	SO3	09/12/2001 00:00:00	○ Grab Com	ADDAVILLE	1	5-340113 1 to 1
Bottle	No. 1	Parameter				
		PM10				

#### CENTRAL REGIONAL LABORATORY

Data Checklist

Data Set AIR 2002 0028 Cheshire Monitoring
Suspended Particle

- Chain-of-Custody
- ☐ Analysis Request Form(s)\*
- ☐ Sample Tags
- Transmittal Report w/signatures of the following:
  - Analyst (s)
  - Peer Reviewer
  - Environmental Data Coordinator

\* Analysis Request Forms provide the data user a means to connect sample numbers with sampling locations

Prepared by:

ata Management Coordinator

#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



#### REGION 5 CENTRAL REGIONAL LABORATORY

#### 536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

JAN 0 8 2002

Date:

Subject:

Review of Region 5 Data for **CHESHIRE MONITORING STUDY** 

From:

Francis A. Awanya, Chemist FAA

Region 5 Central Regional Laboratory

To:

Attached are the results for: **CHESHIRE MONITORING STUDY** 

CRL data set number: 20020028

Samples analyzed for: Suspended Particles

Results are reported for sample designations: 2002AH22S01, 2002AH22D01, 2002AH22S02,

and 2002AH22S03.

AN	0	8	2002	

3 (4)	American I
Data Management Coordinator and Date Received	
Date Transmitted: JAN 0 8 2002	
Please have the U.S. EPA Project Manager/Officer complete the Customer attached, or call the CRL Sample Coordinator at 3-1226.	Satisfaction Survey,
Please sign and date this form below and return it with any comments to:	3. 2. u
Sylvia Griffin Data Management Coordinator	ā
Region 5 Central Regional Laboratory ML-10C	
	#8 E8
Received by and Date	
Comments:	

# ENVIRONMENTAL PROTECTION AGENCY REGION V

#### CENTRAL REGIONAL LABORATORY

FINAL RESULT REPORT FOR THE TEAM: <u>ANALYTICAL AND INORGANIC (A&I)</u>

DIVISION/BRANCH: AIR DIVISION SAMPLING DATE: 12/12/2001 LAB ARRIVAL DATE: 12/13/2001 DUE DATE: 01/03/2002

DU NUMBER: 90101A DATA SET NUMBER: 20020028 STUDY: CHESHIRE MONITORING STUDY PRIORITY: 1 LABORATORY :CRL

SAMPLE#	CRL LOG NUMBER	SAMPLE DESCRIPTION	SUSPENDED PARTICLE (g/filter)	*:	2
1	2002AH22S01	GUIDING HANDS SCHOOL	R		41
2	2002AH22D01	GUIDING HANDS SCHOOL	0.0005 J	×	
3	2002AH22S02	RVHS	0.0097 J	(0)	·
4	2002AH22S03	ADDAVILLE	0.00 <b>7</b> 9 J	·	
DATE OF ANALYSIS			01/02-04/2002		24
ANA	ALYST		FAA		

eviewed by:	£.8	Date:	181	8009

CRL SOP: HK015	Date: 07 January 2000	Revision No. 1
Data review for the Analytic	Page_of _	

#### ATTACHMENT II

CRL Analytical and Inorganics Data Review Checklist

Batch Number: 20020028 Facility: CHESHIRE MONITORING STUDY

Parameter: SUSPENDED PARTICLES CRL.SOP: AIG Q47

Package Overview:	YES	NO
Raw Data Package Complete?		
Results Reported Correctly?		
Special Requests Done?	N/A	
Calculations Checked?	V	i ji
Calibration Not Exceeded?	N/A	0/1004 414 04
Manual Peak Integration performed? Circle one IC or GC and Check	N/A	
Field QC Checked?	N/A	Samo b Stranger
Quality Control:		F.F
Holding Times Met?	N/A	
Preservation Checked?	N/A	
Proper Digestion Verified?	N/A	
Initial Instrument Performance Checks Verified?	1	1/1
Calibration Verification Checked?	NA	4
Sample-Specific QC (Internal Standards or Analytical Spikes) Okay?	N/A	
Matrix QC Checked?	N/A	
Digestion Blanks Checked?	NIA	
Spiked Blank Checked?	NIA	
LCS (if applicable) Checked?	N/A	
QCS (if applicable) Checked?	N/A	
Final Check		
Technical Review Done?	V	
Narrative Complete?	2	

Analyst:_	FA	A	Peer Reviewer:		E. J.	kii	
Date:	1/-	112002	Date:	1	18	7003	
0.00		9	Comments Attached?	(Y/N	4)		

Data Set Number:	20020028	Parameter:	Suspended Particles
Facility Name:	<u>CHESHIRE MONITOR</u>	ING STUDY	
Study Name:	<u>CHESHIRE MONITOR</u>	ING STUDY	
Date of Narrative:	01/07/2002	Analyst:	<u>Francis A. Awanya</u>
Prepared by:	FAA	Signature	FAR

#### ANALYSIS CASE NARRATIVE

Four (4) exposed filters were received for suspended particle analysis at the Central Regional Laboratory (CRL) on December 13, 2001. Those filters were fractions of clean filters, prepared at the CRL and sent to the field for exposure. Filter identification numbers and other pertinent information obtained from the individual filters and packaging envelopes are presented in the table below.

Filters ID	Samples ID	Tag Number
Q6280140	2002AH22S01	5-340110-1
Q6280141	2002AH22D01	5-340111-1
Q6280142	2002AH22S02	5-340112-1
Q6280143	2002AH22S03	5-340113-1

Filter equilibrations and final weighting of exposed filters were performed according to CRL.SOP AIG047. Analysis of exposed filters was first performed on 12/20/2001 but was repeated because the temperature/humidity recorder failed. It was completed on 01/04/2002.

#### QUALITY CONTROL (QC):

Analysis results were evaluated using the QC requirements of CRL.SOP AIG047. All required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the limits with the following exceptions;

*Tears in filters;* Two tears, in the middle and at the edge, were observed in exposed filter Q6280140 (CRL sample I.D number 2002AH22S01). Final filter weight determined was less than initial. Suspended particle result for this filter is unusable.

One tear was observed in the middle of exposed filter Q6280141 (CRL sample I.D number 2002AH22D01). Large tears and scratches were observed in exposed filter Q6280143 (CRL sample I.D number 2002AH22S02). A large tear in the middle, and scratches, were also observed in exposed filter Q6280143 (CRL sample I.D number 2002AH22S03). Use those results with caution. Suspended particle results for those samples could be biased low due to loss of particles or filter materials.

A probable cause for all the tears or scratches observed are activities related to removal of exposed filters from the individual sampling equipment in the field.

Suspended Particles Data Set Number: 20020028 Parameter: CHESHIRE MONITORING STUDY **Facility Name:** Study Name: CHESHIRE MONITORING STUDY Date of Narrative: 01/07/2002 Analyst: Francis A. Awanya FAA FAN Prepared by: Signature:

#### **ANALYSIS CASE NARRATIVE**

**Duplicate audits;** Duplicate measurement obtained by a second analyst on sample 2002AH22S01 (Differences =0.0019 g) was out of the limit (Limit  $\leq \pm 0.00005$  g). The second weighing was lower than the first. Probable cause is loss of loose filter materials and suspended particles due to the tears and damage described above. Results of duplicate weighing on a second filter were within the limit.

#### **SAMPLE RESULTS:**

Suspended solid results for samples 2002AH22D01, 2002AH22S02, and 2002AH22S03 could be biased low. "J" flags are assigned to those values. Use those results with caution. Suspended particle results obtained for sample 2002AH22S01 is unusable. "R" flag is assigned with no value reported.

#### **ELECTRONIC DATA:**

No electronic data.

## CHESHIRE AIR MONITORING PROJECT PM10

Parameter: Suspended Particles

Data Set Numbers: 20020027 & 20020028

Date of Analysis01/02-04/2002

Analyst:

FAA

#### **BALANCE VERIFICATION:**

Sandard Weights	Balanced weight	Differences	
Actual (g)	Balanced (g)	(g)	
		Limit +/-0.0005 g	
Data set Number 2002	20027,28		
1.0000	1.0001	-0.0001	
2.0000	2.0000	0.0000	
5.0000	4.9999	0.0001	

#### QC-SUMMARY FOR EXPOSED FILTERS

Filter ID	CRL Sample	Sampling	ANALYST	Exposed weight (g)	
Number	I.D Number	Date			
	J. Janes	ali pelana			
Data set Number 20	020027, 20020028				
Q6280141	2002AH22D01	12/12/01	Analyst 1	4.3940	
Q6280141	2002AH22D01	12/12/01	Analyst 2	4.3941	
Differences (Limit +/-	- 5 mg)			-0.0001	
Q6280140	2002AH22S01	12/12/01	Analyst 1	4.3910	
Q6280140	2002AH22S01	12/12/01	Analyst 2	4.3891	
Differences (Limit +/-	- 5 mg)	3/72 - 6-2		0.0019	

### CHESHIRE AIR MONITORING PROJECT PM10

Filter ID	CRL Sample	Sampling	Station	Sampler	Pstg	P1/Pa	Total	Pre Weight	Exposed	Weight	PM10
Number			Location	Location SN			Volume (M^3) of filters (g		weight (g)	Gain	(UG/M^3)
			Harries Hotelers	OR	1224						
Data set N	umber 20020027										
Q6280132	2002AH21S01	12/11/01	Guiding Hands School	3012	19.75		0.00	4.3378	4.3726	0.0348	ERR
Q6280133	2002AH21D01	12/11/01	Guiding Hands School	3013	18.50		0.00	4.3637	4.3822	0.0185	ERR
G6280134	2002AH21S02	12/11/01	RVHS	3009	20.00		0.00	4.3930	4.3991	0.0061	ERR
Q6280135	2002AH21S03	12/11/01	ADDAVILLE	3011	20.05		0.00	4.3633	4.3597	-0.0036	ERR
Data set N	umber 20020028		-								
Q6280140	2002AH22S01	12/12/01	Guiding Hands School	3012	19.00		0.00	4.3915	4.3910	-0.0005	ERR
Q6280141	2002AH22D01	12/12/01	Guiding Hands School	3013	19.05		0.00	4.3935	4.3940	0.0005	ERR
G6280142	2002AH22S02	12/12/01	RVHS	3009	18.75		0.00	4.3456	4.3553	0.0097	ERR
	2002AH22S03	12/12/01	ADDAVILLE	3011	18.75		0.00	4.3709	4.3788	0.0079	ERR

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20020028 Preservative None SMMDBD Sample ID 02AH22SO2 Date 12-10-01

US EPA Region 5 Field Sample 

Parameters PM10

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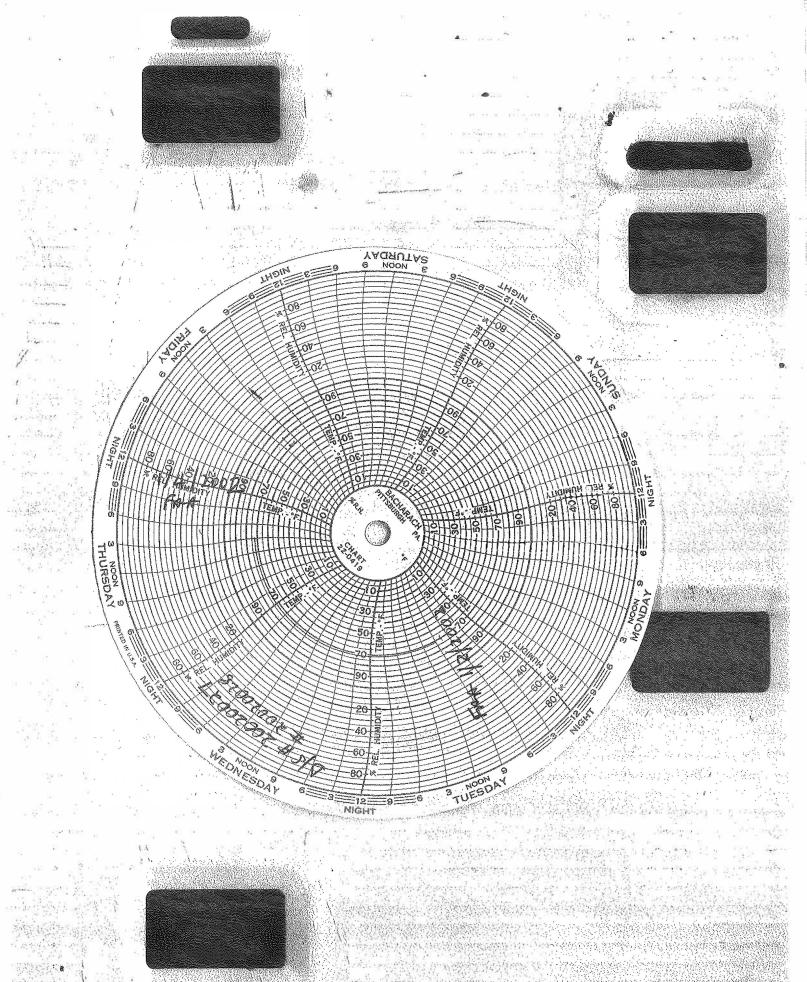
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